

DOCUMENT RESUME

ED 201 066

EA 013 523

AUTHOR Smith, G. B.
 TITLE Employer-Sponsored Recurrent Education in the United States: A Report on Recent Inquiries into Its Structure.
 INSTITUTION Stanford Univ., Calif. Inst. for Research on Educational Finance and Governance.
 SPONS AGENCY National Inst. of Education (DHEW), Washington, D.C.
 REPORT NO IFG-PR-80-A13
 PUB DATE Nov 80
 CONTRACT 400-76-0215
 NOTE 58p.; Paper presented at the IFG/OECD Seminar on the Cost and Financing of Recurrent Education (Stanford, CA, July 1980).
 AVAILABLE FROM Institute for Research on Educational Finance and Governance, CERAS Bldg., Stanford University, Stanford, CA 94305 (\$1.00).
 EDRS PRICE MF01/PC03 Plus Postage.
 DESCRIPTORS *Adult Education; Adults; Employer Employee Relationship; Employers; Flexible Working Hours; Industrial Education; Industrial Training; Job Satisfaction; *Job Training; Leaves of Absence; *Lifelong Learning; Postsecondary Education; Released Time; *Staff Development; Training Allowances; *Tuition Grants; Unions; Vocational Education
 IDENTIFIERS Kimberly Clark Corporation; Polaroid Corporation AFSME District Council 37 NY

ABSTRACT

Employer-sponsored recurrent (or lifelong) learning has grown from its World War II beginnings to become a large, important, but little-studied aspect of American education, one with major implications for the U.S. economy and society. U.S. employers spend from 20 to 100 billion dollars on educational programs for anywhere from 37 to 73 million employees. The educational programs range from informal on-the-job training or formal apprenticeships to formal academic instruction through tuition assistance or paid release time. Availability of the programs is uneven: they are provided chiefly by large companies and are used mostly by nonmanual employees. Examination of four types of tuition assistance, the most prevalent employer-sponsored program, illumines some benefits and barriers. A survey of company and union officials, union workers, and union contracts showed the programs enhanced worker effectiveness and satisfaction and increased career development and job mobility. But 20 barriers, especially lack of time off and of program information, hampered worker participation. Three successful tuition assistance programs (two company and one union) indicate the barriers can be overcome if the programs include liberal eligibility, flexible work scheduling, nonrestrictive curriculum requirements, limited out-of-pocket expenses, and wide publicity. (RW)

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

IFG

Institute for Research on Educational Finance and Governance

SCHOOL OF EDUCATION STANFORD UNIVERSITY

ED201066

EA 013 523

Project Report No. 80-A13

EMPLOYER-SPONSORED RECURRENT EDUCATION IN THE
UNITED STATES: A REPORT ON RECENT
INQUIRIES INTO ITS STRUCTURE

G. B. Smith*

November 1980

*The author is a Senior Associate at the National Institute of Work and Learning (formerly the National Manpower Institute).

This paper is made possible through funding support (Contract Number 400-76-0215) from the National Institute of Education, U.S. Department of Education. The paper was presented at the IFG/OECD Seminar on the Cost and Financing of Recurrent Education in July 1980 at the Institute for Research on Educational Finance and Governance. The analyses and conclusions do not necessarily reflect the views or policies of these organizations.

INSTITUTE FOR RESEARCH ON EDUCATIONAL
FINANCE AND GOVERNANCE

The Institute for Research on Educational Finance and Governance is a Research and Development Center of the National Institute of Education (NIE) and is authorized and funded under authority of Section 405 of the General Education Provisions Act as amended by Section 403 of the Education Amendments of 1976 (P.L. 94-482). The Institute is administered through the School of Education at Stanford University and is located in the Center for Educational Research at Stanford (CERAS).

The research activity of the Institute is divided into the following program areas: Finance and Economics; Politics; Law; Organizations; and History. In addition, there are a number of other projects and programs in the finance and governance area that are sponsored by private foundations and government agencies which are outside of the special R&D Center relationship with NIE.

Abstract

According to various estimates, U.S. employers spend between 20 and 100 billion dollars on educational programs for employees. This paper discusses the purposes, forms, effects, and magnitude of this private sector spending. After describing the various kinds of programs in operation, the author examines in greater detail the most prevalent category of employer-sponsored education, tuition assistance programs. Because many of these programs have poor participation rates, descriptions of three more effective and perhaps exemplary programs are provided. The plans of Kimberly Clark and Polaroid Corporations and the District Council 37 of the American Federation of State, County, and Municipal Employees of N.Y.C. suggest ways in which employers can enhance the attractiveness and usefulness of their educational programs.

Acknowledgment

This paper leans so heavily on the fact-gathering and analysis of Dr. Harold Goldstein, Dr. Charles Stewart, Ms. Bryna Shore Fraser, Ms. Jane Shore, and Messrs. Paul Barton and Willard Wirtz that any claim to authorship of more than a fraction of what follows would constitute utter fraud. Its existence is properly understood as a budgetary convenience, nothing more.

The works drawn upon here are, in the main, policy research monographs commissioned by the Project on Worker Education and Training Policies, with which project it has been my good fortune to be associated since 1978. This project is one of several current activities of the National Institute of Work and Learning (formerly the National Manpower Institute).

The project is made possible through funding support from the National Institute of Education. Ms. Nevzer Stacey has served as the NIE project officer since 1976, and is as much as anyone responsible for its being.

INTRODUCTION

The purposes, forms, effects and magnitude of private sector spending for workforce education and training have become, in recent years, for many and varied reasons, subjects of intense interest and speculation. Demand for detailed and accurate information on these subjects has arisen within industry itself, government agencies, education and research institutions, and organized labor.

Stimulating that demand are a diverse array of interests and concerns. Among them:

- continuing anxiety about a declining rate of productivity growth, and its effects on inflation and our competitive position in the world economy, combined with an appreciation that past and future levels and kinds of investments in skill and knowledge formation might well be part of the cause and solution of present problems;
- concern about the ways and means by which equal employment opportunity gains for minorities, women, older workers, handicapped and other groups can be advanced or, more probable, effectively sustained in the years ahead;
- concern about whether our public education and training establishments and practices are up to the task of accommodating, quickly enough, the changing skill and knowledge formation needs of our economy, especially in the face of a rapidly altering demography at the workplace;
- concern about whether the aspirations and expectations of the workforce of the 1980's can be accommodated within traditional pyramidal occupational structures and attendant rewards, in the absence of other human-growth options; and

- an emerging appreciation that to achieve mastery over the demands of everyday life and to participate in an informed way in political affairs and decision-making requires of Americans an increased sophistication obtained only through continuing learning, and in many instances through organized learning.

We know now that during the past 30 years a vast and diverse educational enterprise has emerged within private industry--particularly large firms. We suspect that how and how well it functions and what kinds of opportunities it entertains will importantly condition how these concerns and national challenges are met.

What are the origins of the present day structure of employer-sponsored recurrent education, of what Seymour Lusterman has called the "shadow education system?" What functions is this structure intended to perform, and what is its rationale from the viewpoint of management and the stockholder? What methods and modes of education are employed? What kinds of workers are reached by the recurrent education opportunities now offered? Which are left out? Where is equity's place in this system? How substantial are the costs of the present structure? What do we know about the effects of the levels and kinds of expenditures currently being made? What are some salient implications of the shadow education system for public policy in this new decade?

What follows is an attempt to speak to these questions and in a few instances to answer them. It does so through two separate but related discussions: the first a brief examination

of the whole of the structure of employer-sponsored recurrent education, the second a closer look at a wing of that structure--tuition assistance programs.

The central question examined here is the question of how large the employer-sponsored recurrent education enterprise is in numbers of participants and in dollars spent. This question has inspired much conjecture. For the whole of recurrent education (deliberate education and training), the more considered estimates range from 37,215,000 to a high of 73,253,000 participants. (Fraser, 1980, p. 11). For industry-sponsored recurrent education the numbers range from 2,605,000 to 16,000,000 participants. We shall look closely at this. On the matter of expenditures, the same enthusiasm for diversity obtains. Estimates of annual employer expenditures range from \$2 billion to \$100 billion. We will ponder these great distances, as well.

A. DIMENSIONS OF EMPLOYER-SPONSORED RECURRENT EDUCATION

In the Beginning

Employer-sponsored recurrent education, in its contemporary configuration, has its recognizable beginnings in the awesome crucibles of the Great Depression and World War II. Despite a rich history in the United States of progressive enlargement of educational opportunity for adult workers,* it is true, that as Charles Stewart has observed, prior to the early 1930's, "a policy of no policy describes public policy as to worklife education for adult workers, while little other than formalization of on-the-job training was apparent in private company practice--this despite the much admired rationalization of the American productive mechanism in the prosperity of the Twenties as the United States assumed economic leadership in the world." (Stewart, 1980, p. 9)

The first of these draconian events was to displace and dislocate millions of American workers from industrial jobs and from the soil. The prevailing processes and structures of industrial skill and knowledge formation--the special American blend of "comprehensive" public education, vocational training (formal, informal on-the-job, and apprenticeships) and work experience--were overtaken by events, and rendered incapable

*To be reminded on needs to note only a few examples: the Carnegie and other public libraries, Samuel Gompers' work-place-based training programs for the cigar makers, correspondence and proprietary schools, county extension agents, the workers' education programs of unions and radical political groups, debating societies and the 19th century Chatauquas, and literacy classes for immigrants.

of sustaining the needs of the economy as industrial production began to rise again in the late 1930's. One reason for the obsolescence of prior skill formation processes was, of course, the fact that human capital accumulation by adult workers became static or indeed declined during the ten year period 1930-1940. Apprenticeship stopped. Formal training in industry was abandoned. Skill acquisition through work experience declined, simply because 1929 levels of employment were not regained until 1940-41. (Stewart, 1980, p. 10) As late as 1938, well after human resource development programs such as the CCC and WPA were in full swing, unemployment (and skill atrophy) remained high: 10.4 million idled workers, or 19% of the labor force. (Wool, 1947, p. 638 in Stewart, 1980, p. 10).

This first event conditioned importantly the peculiar ramifications for industry of the second event, the World War. Between 1940 and 1945, the standing military forces grew by about 12 million and civilian employment increased by 7 million. Civilian labor force growth was nearly treble the normal expected growth of 3 million workers. School and college age youth, women 25-54 and men and women over 55 accounted for the eight million additional workers. (Jaffe & Stewart, 1951, pp. 176-182 in Stewart, 1980, p. 10). In the main, these persons had no occupational experience or training, and only irregular work experience or exposure to work discipline.

At every occupational skill level, and throughout an array of new occupations, there were growing demands for labor. Every

possible training facility was brought into use. With the advent of the Vocational Education for National Defense Act (VEND Program), \$80 million annually was invested in established state vocational systems, with the result that over 7 million prospective war production workers received institutional training at a cost of about \$400 million (Venn, 1970, p. 151 in Stewart, 1980, p. 11). Of greater significance by most estimates was the radical alteration of industrial skill training on the job.

Jobs were broken down so that workers with a few weeks training could perform the simplified single skill tasks. Supervisory training was especially emphasized so that skilled workers might be more effectively used" (BLS, 1945 and Woytinsky 1953 in Stewart, 1980, p. 12).

The public policy aftermath of these major events is well-explored and highly visible. The unemployment insurance and social security systems were Depression-born initiatives which have and may yet again play important roles in connection with expanded worklife or recurrent education opportunity in the United States. Out of the War experience and immediate post-War concerns emerged the Servicemen's Readjustment Act of 1944, a most important legacy of World War II. This GI Bill of Rights afforded 7.5 million adults new worklife education opportunity at a cost of \$13 billion in the twelve year period 1944-56. One half of World War II veterans exercised the education and training option (Stewart, 1980, p. 12). Then, too, came the Employment Act of 1946, Congress' reaction to

the perceived threat of a serious recession resulting from expected reductions in military spending. This act, while in the main procedural and hortatory, established the dominance of macro (demand management) fiscal and monetary policies in post-war management of the economy. This cost to national economic policy importantly influenced the evolution of recurrent education developments, both publicly and privately sponsored, and, one could properly argue that, on balance, it functioned in unnecessarily constraining ways.

The private policy response--though by no means as separate and insulated from the public policy response as we might think in our more laissez-faire moments--is a far less visible and well-examined matter. We do know that a great many of the employee education programs of the major U.S. companies, such as tuition assistance programs, began during and just after the War years (ATT, 1977, BNA 1978). We do know that in many high technology areas developed or refined during the War, industry stepped in with its own technical/functional skills training programs, in part to protect industrial secrets from unscrupulous competitors, but also because the apparatus required for training were often unique and often highly expensive.

Functions and Needs

Skill and knowledge formation occurs through three modes: general education, vocationally oriented education at all levels, including professional, and learning opportunities provided by employers either on the job or in special programs. The

individual, the occupation, the industry, and the social milieu dictate how these three modes are combined. Employer-sponsored education is the capstone of the other modes. In the U.S., its main function remains to adapt previously acquired general knowledge and skills to the needs of the job. It also serves with increasing frequency the function of compensating for the deficiencies of both general and vocational education. In both cases, employer-sponsored education must often include general knowledge. In a few circumstances, it involves a return to school.

The employer's needs are dominant in the American arrangement. Among these needs which recurrent education offerings are designed to meet are:

- supplementing and focusing the general skills of new workers to adapt to the way work is done in the enterprise;
- orienting new workers to the policies, rules, and organization of the enterprise;
- upgrading employee skills for promotion;
- retraining employees where new production methods and processes have been introduced;
- equipping managerial personnel to deal with new products, or new factors affecting the business such as government regulations in occupational health and safety, environmental governance, affirmative action;
- compensating for serious deficiencies in the work skills of current employees (e.g. special training programs for DC-10 maintenance workers following the O'Hare airport crash of 1979, and establishment of the Nuclear Operations Institute to train operating staff of nuclear electric generating plants following the Three Mile Island incident;

- to assure or achieve occupational vitality, particularly as it relates to managerial and professional employees;
- to stabilize employment, reduce turnover, and fill needs for shortage skills from within;
- to enhance the recruiting capacity of the firm (from Goldstein, 1980, pp. 7-14)

The occupation and industry of the worker importantly determine what recurrent education opportunities are available. There are significant differences in the education and training opportunities afforded-managerial employees, sales employees, supervisory personnel, craft and operative workers, clerical workers, and professional and technical workers.

The structure and technology of industries similarly affects their needs and the modes of education available for these operations. In certain high technology sectors such as the tele-communications industry, for example, employers can hire already trained workers in only a few occupations. Career ladder structure is another decisive factor. Industries with well-articulated promotional sequences and ladders have few hiring points or entry portals except at the bottom rung. Workers advance to skilled production or maintenance jobs through recurrent education opportunities of varying kinds in such industries as steel, automobile, petroleum, and chemicals. In the health care industry, a two tier system obtains. Hospitals employ many occupations for which training is provided by schools. Little or no post-hiring education is provided by the employer. What employer-provided education does occur has the limited purpose of qualifying untrained workers (some 60%-70%

of hospital personnel in large cities) for employment upgrading within job groupings where some promotional opportunities exist (D.L. Kimmerly, 1979, in Goldstein, 1980, p. 11).

Methods and Forms

Employer-sponsored recurrent education takes many forms, employs an array of methods, and includes a wide range of content depending on the skills to be imparted and the purpose of the education. It ranges from the most informal training to highly formalized academic instruction.

The traditional and probably dominant form of skill acquisition is informal, on-the-job training using the buddy system or supervisor-monitor trial and error method. More formal training emphasizing the why as well as the how, may be employed for complex organizations and jobs. This may consist of individual or small group instruction, held in a classroom at the plant, offering programmed learning, or audio-visual aids such as electronic blackboards. Or it may entail programs located away from the worksite at a school or other community setting, possibly involving some form of tuition assistance or paid release time (Goldstein, 1980, pp. 14-15).

Of the various types of on-the-job skills training processes, apprenticeship is among the most systematic and time-honored. While only about 1.5% of new workers complete formal registered or unregistered apprenticeship programs, apprenticeship is the preferred choice in many industries, particularly the unionized sector. (Swerdloff, 1978 in Goldstein 1980, p. 15).

Each method, each form has benefits and costs, assets and liabilities worked out according to the employer's preference in most instances, although not necessarily on the basis of any refined tradeoff calculus. There is some evidence that the incidence of formal training programs has risen on the whole, although the years (1962-1969) for which data was collected in the referenced survey were marked by significant tightening of the labor market, normally a time during which training activity accelerates in the United States (Clark & Davis, 1975, citing a Bureau of National Affairs survey, in Goldstein, 1980, p. 17).

Telling Trees From Forests

Agencies charged with the deep-reading of present and future dispositions and capabilities of other countries, ally and adversary alike, closely watch the processes and structures of skill and knowledge formation. Quite extensive records are kept on the domestic front concerning at least some aspects of two legs of the knowledge/skill formation triad in the U.S...general education and vocational training. But, about the third leg, employer sponsored education and training, the knowledge base is precariously slim and fragmentary. This is a curious state of affairs in view of the millions of Americans involved in the recurrent education system, the estimated billions of dollars spent, and the consequences hoped for in terms of firm productivity, worker income, U.S. economic competitiveness in the global economy, and occupational and social mobility.

That our knowledge base is so limited is in large part a reflection of the historical separatism between the public and private sectors in the U.S., and the prevalent opinion shared

by both sectors that education in industry is "a private affair." Both the latter opinion and separatism have undergone substantial modification in recent years in part because of the growing areas of interface between public policy and private policy in the human resource development area. Equal employment opportunity is one major avenue of public policy intervention into that "private affair." Others include the significant evolution of public-private interaction in the employment and training arena since the Area Redevelopment Act of 1961, including the more significant Manpower Development and Training Act of 1962, and in recent months, the Private Sector Initiatives Program under the amended Comprehensive Employment and Training Act of 1973.

Four problems act to constrain our present knowledge base about the central questions: who is providing how much of what kinds of recurrent education to whom and with what effect. The first is that national surveys of education and training activity in the economy have been infrequent and irregular. Secondly, the mode of education which appears to be most prevalent, informal learning under the tutelage of a supervisor or worker, is not captured in surveys, because records of such training are not kept. Even more structured modes of training, such as systematic rotation of workers in skill crafts areas, aren't noted for the same reason. A third problem is that few surveys contain a representative sample of companies; many of the studies which have been done were conducted by surveying firms whose interest in training was such that it led them to join an association concerned with training. Fourthly, despite the fact that non-

response in surveys usually indicates lack of interest in or lower incidence of the behavior or characteristic being measured, neither of the two most recent surveys or employer-sponsored education (Lusterman 1977 and Bureau of Labor Statistics 1977) used information obtained from non-respondents, or adjusted reported findings to accommodate for the non-response. (In the case of Lusterman, this constituted 78% of the sample.) (Goldstein, 1980, pp. 22-23.)

The Size Of It All

The first general survey of employer-sponsored education was conducted by the U.S. Department of Labor in 1962. This establishment survey showed that only one in five sponsored any type of formal training. At the time of the survey, only seven percent of workers were enrolled in formal programs. Half of the enrollees were in safety training. Only 40% of the enrollees or 3% of all employed workers were receiving skill improvement education. Of these, 10% were taking administrative and advisory training, 7% sales training, and 6% training for the skilled trades. This survey also depicted sharp differentiation on the basis of establishment size in the incidence of training (U.S. D.O.L., 1965 in Goldstein, 1980, p. 26).

In a 1957 survey of the top 500 corporations listed by Fortune magazine, 85% of the responding companies reported some sort of sponsored education program. Sixty-seven percent of respondents conducted both internal and external programs; 28% conducted only internal programs. The most common type of

education was supervisory skills training, offered by 92% of the firms. Education programs for professionals followed, offered by 71% of the respondent firms. Education programs for factory operatives were provided by 45% of respondents and programs for clerical workers (mainly female workers) by 31% of responding companies. When allowance for non-response is made, these percentages, of course, change markedly; the lower the response rate, the greater the variance. (Clark and Sloan, 1958, pp. 13-24, in Goldsten, 1980, p. 27)

The most frequently cited study of employer-sponsored education is the Conference Board's survey of all firms with 500 or more employees for the period 1974-75. The sample included firms together employing about 32 million persons or about half the wage and salary workers in private non-farm establishments at the time. The response rate was 22%.

Given the importance attached to this survey by industry researchers and public policy analysts, I quote at length here from the analyses of this study's findings and faults offered by Dr. Harold Goldstein.

"In this survey the formal training modes were structured as follows: (1) Company courses, whether conducted by company personnel or outside institutions and contractors, and whether they are held on or off the company's premises; some are held during work hours, some after hours. (2) Tuition aid programs selected and arranged for by employees, who are reimbursed fully or partly by the firm; the courses are normally after working hours, and at colleges or universities, but sometimes the instructors come to places more convenient for the employees-even in some cases to company premises. (3) Other outside courses offered by such organizations as the American Management Association, the Conference Board, professional societies, trade associations or corporate suppliers

of training. They are open to employees of more than a single firm and are taken during working hours.

Among the 22 percent of firms responding, the following percentages reported having various types of training programs (Lusterman, op. cit., Table 2.6)*:

Tuition aid (for after-hours courses)	89%
Other outside courses (during work hours)	74%
Company courses (during work hours)	70%
Company courses (after hours)	39%**

The largest firms had the highest incidence of each type of program ...for example, 96 percent of the firms with 10,000 or more employees had company courses during work hours, but only 55 percent of those in the smallest size class, 500-999 employees, had such programs.

On the critical question of the number of employees receiving training, their occupations, and the kinds of training they got, the survey report is unclear. It is possible, however, to piece together a rough estimate of the total incidence of training. Employees who had participated in company courses in the previous year totaled 4.4 million, or 13 percent of all workers in firms employing 500 or more; 3.7 million (11 percent) had participated in programs during hours, and only 700,000 (2 percent) in after-hours programs (Lusterman, p. 11). In addition to those participating in company courses, there were 1.3 million participants annually in tuition aid programs, or 4 percent of all workers, according to a rough estimate by the author of the study based on a 1970 Conference Board survey (Lusterman, p. 11). To this must be added the employees who participated in courses other than tuition-aid provided by non-company sources. The report gives no estimate of the number involved, but this form of training absorbed 9 percent of the training expenditures (Lusterman, Table 2.7). Making a rough estimate

*The 22 percent response does not represent the incidence of training in the entire population, as shown by the lower incidence reported by the 51.4 percent of non-respondents who replied to a follow-up mailing. The difference ranged from 2 percent fewer firms reporting company courses during hours to 14 percent fewer reporting outside courses during hours (Lusterman, Table C.3). With the information published in the report, it is not possible to estimate the effect of non-response bias. The figures cited above differ from those printed in Table 2.1 of the report, which were incorrect, according to a telephone conversation with Mr. Seymour Lusterman.

**All Lusterman tables reproduced or adapted in this paper are reprinted with permission of the publisher.

on the basis of the cost figures, this group of workers may have added about 10 percent to the numbers receiving training, or about 600,000. If we assume that none of these four groups of workers participated in more than one type of course, the total number of workers involved in formal training was about 6.3 million, or about one out of five of the 32 million workers employed in firms with 500 or more employees.

The percentage of employees participating in company courses (13 percent, overall) was fairly uniform in the larger size companies (14-16 percent), but in the smallest size firms it dropped to 10 percent (Lusterman, Table 2.2). By industry there was less uniformity; manufacturing firms had only 7 percent participation, finance and insurance as high as 20 percent, and in the other sectors, the range was 12 to 15 percent. Most of the participation was in courses during work hours (Lusterman, Table 2.7).

Another measure of the relative emphasis among programs is the distribution of expenditures (Lusterman, Table 2.5):

Company courses	80%
Outside courses	
Tuition aid	11%
Other	9%

Smaller firms depended more on outside courses for their training: in firms in the 500-999 and 1,000-2,499 size groups between 50 and 60 percent of the expenditures were for outside courses, while in the largest size group, 87 percent was spent in-house (Lusterman, Table 2.5).

In terms of expenditures and employee involvement, therefore, the most prevalent mode of employer-provided training in firms employing 500 or more workers was through company courses during work hours. The kinds of training given in such programs are shown in Table 2.

Table 2
Types of Courses Given in During-Hours
Company Programs

<u>Type of Course</u>	<u>%/Companies Providing Courses</u>	<u>Employees Involved</u>		<u>Expenditures</u>	
		<u>Number (000)</u>	<u>Percent of Total</u>	<u>Millions of \$</u>	<u>% of Total</u>
Management development/ supervisory	60%	1,400	37%	\$ 430	24%
Functional- technical	54%	2,300	61%	1,340	74%
Basic remedial	8%	30	1%	15	1%
Other	11%	30	1%	15	1%
All courses	70%	3,760	100%	\$1,800	100%

Source: Lusterman, Tables 6.1, 6.2, and 6.3

The functional-technical category included such areas as production, maintenance, marketing, sales, service, office administration, internal systems, finance and personnel-i.e., mostly managerial and white-collar skills. Comparing these figures with the occupational distribution of the work force in the reporting companies--11 percent managerial, 12 percent professional and technical, 10 percent sales and marketing, and 67 percent all other occupations (Lusterman, Table 2.11)--the conclusion is inescapable that training through company courses in working hours, the most prevalent mode, was disproportionately concentrated on providing managerial and other white-collar skills. This was less true in the largest companies (those with 10,000 or more employees) where 81 percent of the expenditures were on functional-technical training, while in companies with 500 to 4,999 employees about half the expenditures were in such courses (Lusterman, Table 6.6). In only 21 percent of the companies--and in only 36 percent of the largest size firms--did hourly-paid employees participate in functional-technical courses, however, and low-salaried employees participated in 22 percent of all firms and 43 percent of the largest ones (Lusterman, Tables 6.7).

Tuition aid programs, although found in 89 percent of the companies reporting and therefore the most widespread mode of employer-provided training, involved

only a small proportion of employees; all after-hours programs, of which tuition aid is one component, involved only 2 percent of the employees of reporting firms. In addition to improving employees' competencies and preparing them for new assignments, companies reported to an earlier Conference Board survey that such programs supported their recruitment effort, enhanced employee morale, and reduced turnover. About half the companies paid all the tuition costs, and most of the remainder either 50-75 percent (Lusterman, p. 34). As noted above, tuition aid and other outside courses were favored by smaller firms, who did not have the "critical mass" to make it worthwhile to employ training staffs or to offer courses in occupations with few workers." (Goldstein, 1980, pp. 27-31.)

The Cost of It All

In the absence of any systematic record keeping within industry, (fewer than 10% of plants in one detailed survey could identify even direct training costs), it is not surprising to find earnestly proffered estimates of annual employer-sponsored recurrent education costs ranging all the way from \$2 billion to \$100 billion.

In an attempt to estimate the costs of education and training to business and industry, Tracey enumerated previous estimates, ranging from Fritz Machlup (1962), \$3 billion for 1958; Decarlo and Robinson in a Chase Manhattan Bank report (1962), \$17 billion; Boozer (1971), \$20 billion; to Otto and Glaser (1970), \$25 billion. Tracey went on to report that in 1972, Willard estimated total training costs of \$700 annually per employee in large firms--\$200 in direct training and \$500 in indirect costs (including lost productivity). Using the 1971 annual average number of employees of private, non-farm, non-government establishments (57,836,000), Tracey assumed

that if two out of three employees received some training at an average cost of \$700, total industry expenditures would be about \$27 billion; if three out of five received training, the cost would be approximately \$24 billion (Tracey, 1974, p. 11). One estimate of total costs of employer-provided education and training in the U.S. (including government employees) runs as high as \$100 billion during 1975 (Gilbert, 1976). This represents 12% of all wage and salary payments that year. (These estimates are presented in Fraser, 1980, pp. 37-38.)

Lusterman estimates direct costs were about \$2 billion (\$1.6 billion for internal programs and \$.4 billion for outside resources) for the large firms surveyed. Goldstein estimates an additional \$1 billion in direct training costs for the rest of the private sector and adds about \$2 billion dollars in salary costs of trainees. After figuring in overhead costs and additional salary costs for managerial and professional workers who receive the bulk of training, Goldstein estimates a total training expenditure of approximately \$10 billion (Goldstein, 1979, p. 35).

Among companies, per capita education spending varies significantly by size of firm and type of industry. The median (per capita) direct expense in the Conference Board survey was \$16. The mean direct expense was \$60 annually. A small number of companies with high expenditures were responsible for pulling up the mean. Transportation, communications, utilities, financial, and insurance companies spent

more than the average, while wholesale and retail firms were well below the mean.

One employer, the Bell System, reports that it spends \$1 billion per year on employee education, including the salaries of trainees. With nearly 1 million employees, its annual per capita expenditure is therefore \$1000. This is estimated to be in the neighborhood of 5% of its total wage and salary bill. Such an apparently atypical company gives currency to speculative estimates such as that of Gilbert.

And What Does it Do?

Whichever estimate one accepts, the conclusion is unmistakable that employer-sponsored recurrent education is a massive enterprise, and represents significant learning opportunity for many American workers. At the same time it is clear that opportunity is unevenly available, and that there is nothing approaching a consensus within industry that education for employees is in the employer's interest. Part of the reason for this latter condition most assuredly is the absence of any clear measure of the value or yield of education investments, or more precisely, the ratio of benefits to costs. The condition obtaining in industry remains as observed by Clark and Davis in 1975:

Surprisingly little progress has been made toward developing techniques for comparing the benefits of training with its cost. While many studies have shown the returns to investments in formal schooling, a survey of 100 large corporations by the authors turned up no instances (among the 50 replies received as this chapter is written) of

business being able to gauge the returns to investments in training with the same financial analysis that it uses before deciding to build a new plant or when choosing between alternative pieces of equipment. While some companies may be conducting formal financial analysis of their training, our findings reveal that business, in general, lacks sophisticated guidance in cost-effectiveness analysis (Clark and Davis, 1975, p. 186, in Goldstein, 1980, p. 50).

This assessment has been confirmed in numerous conversations with industry education and training officials over the past 24 months. It is worth noting that both the Bell System and IBM corporation have significant research projects underway to measure performance changes (the critical variable for evaluation research).

In Sum

In summary, from these diverse surveys this shadowy picture emerges: formal education opportunities are provided by many fewer than half of all firms, but by more than 4 out of 5 of the larger firms. Among these larger firms about one in five workers is involved in education during any one year; a much smaller proportion obtains for all industry. Most education opportunities are provided during working hours in company-sponsored courses. Education for skill and general knowledge development (as distinct from company or product orientation, safety, etc.) is only a modest part of the total. Many of the formal skill training and education opportunities are for management and other white collar skill areas, particularly professional and technical. Manual workers receive a disproportionately small share of formal training. Educational

expenditures were probably in the range of \$10-20 billion dollars in the mid 1970's. Because training is often constrained during downsurges in the economy, expenditures may be lower presently than during 1975. The effects of these investments on individual or firm's performance are not now measured. In the absence of such measures, one can anticipate that the ambivalence toward education and training one observes in many conversations and in industry behavior today will continue.

This is a picture of the whole. What of that category of employer-sponsored recurrent education most prevalent in American firms today? How significant is it? What are its implications for the financing of worklife or recurrent education opportunity in the years ahead?

B. TUITION ASSISTANCE PROGRAMS: PROSPECTS AND PROBLEMS

From the public policy vantage, one of the more intriguing and enigmatic elements of employer-sponsored recurrent education is tuition assistance. As indicated above, it is the most widespread mode of employer-sponsored education. Tuition assistance programs represent a private basis for financing those education experiences most in keeping with the mind's eye image of recurrent education, e.g., a curriculum inclusive of, if not principally concerned with, liberal learning and general knowledge areas, from Plato to polymers, Socrates to cybernetics.

Until recently, little attention had been given tuition assistance in the United States by either education policy circles, union officials, or the training and development community within industry. Some elements of the latter appear to remain especially chary of tuition assistance.) Four years ago the National Institute of Education contracted with the National Institute for Work and Learning (formally the National Manpower Institute) to examine the prevalence, content, uses, and obstacles to worker utilization of negotiated tuition assistance programs in the private sector. The overall study was subsequently broadened to include a series of case studies of successful (highly used) tuition assistance plans, a series of model workplace demonstration projects, a policy development initiative, and other activities in the general area of recurrent or worklife education. Thus, tuition assistance is a dimension of employer-sponsored recurrent education about which

our knowledge is relatively extensive.

What follows is an attempt to shed further light on the larger whole through this particular window. The fragments reported on here will hopefully make clear why tuition assistance in the private sector is considered a resource of significant potential in financing a broadened recurrent education structure in the United States. In this discussion, major attention is given to the characteristics and prevalence of tuition assistance plans, what we have learned about utilization of tuition assistance, and what recent case studies tell us makes for a successful program.

The data presented below were gathered in 1976-77 through mail surveys and direct interviews with 51 company and 52 union officials and 910 unionized workers, and analysis of 79 major contracts containing negotiated tuition assistance provisions.

What It Is

Tuition assistance is an educational finance mechanism, nothing more nor less. The operational definition in our 1976-1977 study follows:

A tuition assistance program is any formal program through which a company offers financial assistance to some or all of its employees to encourage them to complete courses of study either at outside educational institutions or through other educational vendors. (LeBel, Task A Report, 1977, p. II-27)

Negotiated tuition assistance is a quite unusual subphylum. Our operational definition of negotiated tuition aid follows:

Any formal plan in which a company has agreed within terms of a company union contract, to pay all or part of the tuition and related financial expenses incurred by employees covered under the agreement, while pursuing courses of study offered on or off company or union premises. (LeBel, Task A Report, 1977, p. II-26)

Four distinct types of negotiated tuition assistance plans were identified in our study of collective bargaining agreements covering 1000 or more workers. In rank order of incidence and by definition, these four types are described below.

• Tuition Reimbursement and Tuition Advancement Plans:

Tuition reimbursement plans are by far the most common form of tuition assistance negotiated between companies and unions in the U.S. Tuition reimbursement and advancement plans pay all or part of tuition and related costs for enrollment in education and training programs outside the company.

- Employees are usually reimbursed by the company after submitting evidence of satisfactory course completion and of tuition payment. Satisfactory usually means a passing grade, although in a significant number of plans a specific grade requirement is established.
- Plans usually cover all or part of registration fees, student activities fees, laboratory fees and graduation expenses. Other costs sometimes covered are: books, supplies, CLEP fees, transportation and meals. The prevailing practice is to allow higher payments for diploma or degree courses and for job-related education.

- Common eligibility criteria are: the worker's job classification, accrued seniority, and satisfactory course completion. Most are open to all active employees who are working at least half time and who have 6 months or more of service.
- The plans usually specify acceptable institutions and courses of study. Often these institutions include: colleges and universities, community colleges, technical and vocational schools, high schools, professional societies, labor unions, trade associations and correspondence schools. In a large number of plans, courses must be for credit and/or must be job, career or degree related. (Only 3.9% of the NMI sample provided coverage for other than job, career or degree related courses.)
- Time off for course attendance or study is not allowed in most plans. Course work is not supposed to affect job performance. In several plans, however, employees may trade shifts or adjust work schedules to accommodate courses.

The criteria for eligibility, institution and course approval and the application procedures mentioned above obtain for the other three types of plans as well.

- Educational leave is granted to a worker for educational purposes for a specified period during working hours; educational leave of absence is granted for a more extended period of time.

Either way but does not necessarily involve full or partial tuition payment. Under the educational leave of absence, leave time is usually credited as continuous company service for pension rights, and many companies will reinstate the worker at the individual's previous job classification. (7.8% of the NMI sample had educational leave provisions.)

- Under Training Fund plans, employers contribute fixed amounts of money per employee into a central fund to finance employee education and training. Usually Training Fund plans are administered by a board of trustees as part of an industry-wide or area-wide program. Often the fund is used to underwrite the operational and fixed costs of training institutes or schools. The objectives of Training Fund plans are to: improve job performance, upgrade skills, retrain workers, and reduce workers' educational outlays.

- Scholarship and Educational Loan Plans are the least commonly encountered form of NTA. Under scholarship plans, eligible workers are given funds to cover educational costs. Loan plans provide loans which require repayment according to an agreed upon schedule. (In the NMI sample 9.8% had scholarship provisions and 15.7% had loan provisions.)

Perceptions

Management and labor share significantly positive attitudes as to perceived objectives and impacts of negotiated tuition aid (NTA) use. Both management and labor overwhelmingly concur that updated knowledge and skills, improved worker

performance, and personal development and growth are each important objectives. In addition, 92% of the company officials surveyed view preparation for future assignments to be an important objective. Over 65% of the union officials surveyed consider as other important objectives: preparing union members for job mobility and responding to local membership concerns. In sum, both companies and unions with NTA plans view tuition aid as a means for improving the position of workers in terms of their skills, personal development, and future occupational assignments.

As to impacts, company and union officials share the view that the three major potential outcomes of NTA are: greater worker effectiveness on the job, heightened career development and job mobility, and increased worker satisfaction.

The workers surveyed by NMI share the views of company and union officials regarding the objectives and impacts of NTA benefits mentioned above. Most workers of the 910 in our survey consider further education and training to be important for many diverse reasons, such as degree completion, improved basic skills, better job performance, preparation for another job, etc.

The consensus among company and union officials and workers, disintegrates over the question of what factors prevent fuller participation by workers in tuition assisted education and training. Through its study, NIWL sought the view of these groups on the relative significance of a number of structural, social and psychological conditions which previous studies indicated to be of possible importance.

2

3

Conditions posited included: (1) The company does not give time off or adjust schedules to promote participation. (2) Workers' interest in attending courses on their own time is low. (3) Insufficient incentives are used to reward participants. (4) Management does not encourage participation sufficiently. (5) The range of courses offered by local educational institutions is too limited. (6) Supervisors do not encourage workers/employees under them to participate. (7) Counseling services in the company/union are not sufficient. (8) Workers do not have enough information about the program. (9) Course schedules offered by local educational institutions are not flexible enough. (10) Shop stewards do not encourage workers under them to participate. (11) Eligibility criteria in the plan are too restrictive. (12) Support services, particularly child care, are inadequate to give workers enough free time to participate. (13) Workers lack information about educational opportunities in the community. (14) The locations of classes are not convenient for workers. (15) Plan application and approval procedures are too complicated. (16) Workers object to paying income tax on tuition-aid payments. (17) Workers feel inadequate to understand or complete courses that are available. (18) Workers are unwilling or unable to pay the costs of courses. (19) Workers do not participate because of social pressure from other workers. (20) Sex, age, ethnic, or racial discrimination restrict participation.

Company officials tend to discount the importance of all of these conditions except one: low worker interest in education.

Union officials on the other hand cite workers' inability to take time off or make schedule adjustments, low worker interest in education, and insufficient encouragement by management as being important obstacles to fuller participation. Workers cite lack of company encouragement, inadequate information about available courses, lack of adequate promotional or income incentives, inflexibility of work schedule, and restrictiveness of course eligibility criteria.

On the matter of information, about one third of the workers surveyed did not know or were not sure about either their eligibility for the NTA program or the approval process. All were eligible. Workers themselves overwhelmingly reject the idea that low worker interest in education is a major barrier to education.

The Extent of Tuition Assistance

In this study of negotiated tuition assistance in the private sector, NIWL estimates that one in ten major collective bargaining agreements in 1977 contained tuition assistance provisions. Expressed differently, we estimate in 1977 there were approximately 200 NTA plans covering nearly 2 million workers. Found in all types of industries, the incidence of NTA plans approximates the distribution of unionized workers, with the largest proportion in manufacturing. There is limited evidence that the number of these NTA plans is growing.

Of the 79 plans closely studied, tuition reimbursement/advance provisions are present in 60 (75%) of the agreements. Of the 60, 54 offer tuition reimbursement exclusively. Only 6 of the 60 contain tuition advance provisions. Educational leave plans appear in 13 (16%) of the agreements. Training fund plans appear in 22 (27%) of the agreements, and scholarships and loans are provided for in only 6 (7%) of the agreements studied.

The Bureau of Labor Statistics estimate of a 4% participation rate in NTA plans nationally in the mid 1970's has been supported by a number of other proximate studies in the 1970's. (O'Meara, 1970; Bureau of National Affairs, 1978; AT&T, 1977). Applying this 4% use rate to the total population covered (2,000,000 workers), and assuming a per capita annual expenditure rate of \$250, one can estimate gross annual outlays under NTA of about \$20 million. On paper commitments under NTA programs are quite probably in the range of one billion dollars (2,000,000 workers x \$500 average maximum allowance).

What do we know about the reach and characteristics of tuition assistance programs of the more common non-negotiated variety? We know very little for certain. Available evidence suggests that they conform closely in basic features and nomenclature to what was described above in the NTA plans. Available evidence also indicates that the use rate is in the 4% range for these plans and that it is the younger, better educated, higher paid, typically white male worker who takes greatest advantage of these plans. (For a detailed discussion see Charner, 1979 and Charner, 1980.)

As noted above, several recent surveys have indicated significant growth in the number of tuition assistance plans on the American scene during the past 15-20 years. This is most likely the case, but whether a higher proportion of companies have tuition aid plans today than did so 10 years ago is something we just don't know. If estimates such as those of O'Meara (1970) and Lusterman (1977) are correct, there has been an increase. If these estimates are correct, then we have a situation in which over 80% of all establishments with over 500 employees have tuition aid plans.

Using data from Lusterman, the author has made some rough guestimates on the dimensions of tuition assistance plan prevalence in the U.S., and the implications for enrollments in adult education resulting from incremental increases in the average utilization rate for TA plans. These estimates will gain moment in the context of the brief discussion of participation rates achieved in several U.S. companies' tuition assistance plans. These estimates appear in Appendix 1 with necessary caveats. In brief, we estimate that in 1975 between 17 and 24 million U.S. workers in private establishments were eligible to participate in tuition assistance plans and that approximately 818,000 did so. If participation rates were increased by 1%, nearly a quarter million additional adults would be participating in recurrent education programs.

The average maximum coverable education expense under the 79 plans examined in the NIWL study was approximately \$500. If we assume that all plans in the universe have an annual per

capita ceiling of half that amount, and if we simply multiply that sum by the number of potentially eligible workers, the upper and lower limits of paper commitments for tuition assistance in the private sector were \$6.1 and \$4.2 billion in 1976. (NIWL, 1980, Appendix A)

Three Programs That Work

The 4% participation rate is by no means constant across programs. In 1978-1979, NIWL examined three programs that boast relatively high rates of worker utilization. Our purpose was to attempt to identify factors in the program structure and administration, in the workforce, and in the contextual environment (industry, community, education infrastructure, etc.), that seem to account for above average participation rates.

There follows a synopsis of each of the three programs examined in these case studies. What they suggest is that every large employer in the country has available the wherewithal, via direct policy action, to enhance employee participation in voluntary education and training programs by a factor of 5 to 10 times. There is nothing congenital in the workforce to prevent it.

The Kimberly-Clark Corporation's Educational Opportunities Plan (EOP), which originated in 1974, is regarded as the leader in innovative company-sponsored tuition-assistance plans. The introduction of this progressive plan, which has a participation rate of over 35 percent was a dramatic departure from the

previously limited and restrictive tuition-aid program at Kimberly-Clark (K-C), which claimed a participation rate of only 1 percent.

Kimberly-Clark, headquartered in Neenah, Wisconsin, is a fast-growing, world-wide marketer of fiber-based personal care products.

The EOP, which provides benefits to workers and their families for courses which do not have to be job-related, is open to nearly half of the almost 16,000 U.S. employees. Many of the eligible employees are concentrated around Neenah, an area rich in educational institutions. The majority of eligible employees are white collar. The participation rates of hourly workers under the plan are lower than the overall 30+ percent rate. The EOP was introduced by the top corporate leadership as a way to recruit, develop, and maintain a highly qualified and satisfied workforce and to evidence KC's commitment and trust in its employees. Statements made by members of the initial design team still hold true:

We had a mandate to design the best educational plan in the U.S. We were extremely excited by the kind of commitment Kimberly-Clark was going to make as a company.

The plan was to be so unique and so exciting that Kimberly-Clark would be able to retain employees by offering such a benefit.

The EOP includes the following major components:

- Kim Ed Account--a personal "bank account," determined by formula, allotted to each employee for his/her educational use. After submitting a "self-development plan," the employee may draw on this account throughout

the year. (The typical Kim Ed Allotment in 1978 was approximately \$450.) Kim-Ed includes a provision for up to ten days of educational leave per year.

- Fam Ed Account--financial assistance provided to employees and their families, based on a formula allotment, for current or future educational expenses. The company makes annual deposits to the account, and there are financial incentives for employees to save for the future.
- Extended Educational Leave--a limited number of paid leaves for up to one year. Reportedly this component of the EOP is rarely utilized.

While notable for the care and detail with which it has been designed, the EOP is also unusually flexible, with deliberate attempts having been made to include structural features which would maximize employee use of the Plan. The most striking among these include:

- liberal eligibility. Unlike many plans, the EOP is not limited to professional or salaried employees. There is a six months seniority requirement.
- coverage of non-job-related and cultural activities, again, a rarity. Courses and institutions must be approved.
- advance payment, for tuition and other educational expenses.
- no grade requirement or proof of course completion.

- unit coordinators. In addition to full-time, high-level administration, a network of local coordinators provide crucial support services, including information on the plan and local educational opportunities.
- extensive plan promotion and publicity, through employee orientation, special announcements, bulletins, supervisors, and word-of-mouth.

Plan officials view the high participation rate as the best measure of EOP success.

While it is impossible to determine exactly which or what combinations of factors have led to the EOP's rapid and unusual success, it appears that the plan's effectiveness can be traced to a combination of contextual and structural features. The Kimberly-Clark Educational Opportunities Plan is a carefully designed program offered to employees within a corporate context of strong support for self-development in an area rich in educational opportunities. Many of the plan's features directly reduce or eliminate the structural barriers which commonly inhibit workers from using educational assistance. (Rosow, 1979)

District Council 37 of The American Federation of State County and Municipal Employees in New York City offers an unusual array of educational programs and services to a large and diverse group of municipal employees. DC 37's Education Fund (EF) stands out because it is overseen by a board of union

members, and operates out of the union's headquarters. Fund programs are not only highly subscribed (the overall participation rate is about 10-12 percent and many programs have waiting lists); they have managed to attract most heavily those groups normally viewed as least likely to take advantage of educational opportunities--lower-skill and lower-paid employees.

With over 110,000 members, DC 37 is the largest council of AFSCME. Known as a progressive, service-oriented union, it offers a wide range of benefits for its members, including a health plan, legal services program, retirees' association, and political action program. Through an agreement negotiated in 1971, the City of New York provides \$25 annually for each of over 76,000 eligible employees to be used to meet a general set of educational objectives. The total annual fund budget is nearly \$2 million.

The Education Fund evolved out of the union leadership's attempts, in the 1960's, to meet the perceived needs of workers for education and training which would lead to job upgrading and promotional opportunities within the city's civil service system. Because of the enthusiastic response of the membership, the initial emphasis on career development has continued and is evident in the focus of Fund programs today. Whether by learning English, passing a civil service test, or obtaining a diploma or college degree, career advancement is the primary objective of most participants and in the selection of course offerings.

While bargaining units of clerical and hospital workers first negotiated with the city for educational funds in 1969 (and other units subsequently did so), it was in 1971 that the District Council 37 Education Fund, administered by a Board of Trustees of union members, was formally established. (Prior to 1971, educational funds were administered by the City.)

In an attempt to fulfill the learning needs of a very diverse population, the Fund has, over the years, developed a wide range of educational programs and offerings. Most of these offerings are in basic skills development programs (including, for example, High School Equivalency, English as a Second Language, and Reading Improvement), college degree programs (DC37 campuses of Hofstra University and the College of New Rochelle, Labor/Liberal Arts for Women, and the Tuition Refund Program), and career-related programs (Clerical Skills, Test-Taking Preparation, Accounting, Nursing, etc.).

Key provisions and features of Education Fund programs attempt to reduce barriers to participation in education faced by working adults who are returning to school after a long absence. These features and provisions include:

- Flexible, simplified admissions procedures, with a minimum of the bureaucracy and red tape which students reported encountering at other schools.
- Scheduling arrangements enabling many students to attend classes on their way home from work. Most classes are held on evenings or Saturdays at union headquarters, and alternative arrangements often exist to accommodate

work shifts. Students gain support from attending classes with their co-workers in the union setting.

- A diversified, nonrestrictive curriculum. Programs are designed to meet a variety of learning needs and styles, and degree programs are not required to be job-related.
- Little or no out-of-pocket expenses for students, made possible through the existence of a fund which is to be spent only on education programs, unlike some arrangements in which education is seen as a cost item for the sponsoring organization.
- An accessible network of support services, including widely available group and individual educational counseling, a learning lab for tutoring and individual instruction in basic skills, a library, and a staff of faculty and administrators who reportedly often act as advisors to students.
- Widespread publicity of the Fund and its programs, through the highly popular union newspaper, word of mouth, referrals, notices, etc. Especially because of the former, there is a high level of awareness of the existence of Fund programs.

Overall, the Fund is seen by the union as successful because it meets its stated objectives and succeeds in attracting large numbers of students, most of whom have positive reactions to its programs. In addition to career development, other reported major outcomes of Fund use are: improved job

performance; increased self-esteem, interpersonal skills, and self-confidence; improved family relations; greater readiness to pursue further education (in the psychological sense or in terms of credentials or skills); and increased involvement in the union as a whole.

As with Kimberly-Clark, the success of the Ed Fund can be attributed to an interplay of environmental and programmatic factors. Many Fund-eligible workers have a strong, clear need for education in order to advance within the civil service system or even to maintain their jobs. Thus, when faced with a highly promoted education program, one which is tailored to their particular social/psychological and learning needs and which is offered within a union which strongly encourages them to "own" and use such programs, many DC37 workers choose to return to the classroom. (Shore, 1979)

The importance of leadership commitment and innovation emerges again in an account of the successful Tuition Assistance Plan of Polaroid Corporation. The creation of a learning environment was central to the vision of Dr. Edwin Land, the unique founder of this unusual and successful corporation, headquartered in Cambridge, Massachusetts, an area brimming with educational opportunities. Ever since Land's founding of Polaroid's education program in 1957, Polaroid has placed high value on maintaining a cadre of highly trained and skilled employees who will advance throughout the Polaroid system.

As a result, the Polaroid education program today is noted not only for its liberal Tuition Assistance Plan (TAP), but for an extensive and highly utilized internal education and training system. The effect of all this, reports one employee, is that "education is just in the air at Polaroid." The numbers are a striking testament to this. Fully 50% of the corporation's approximately 12,000 domestic employees participated in one or more internal or external educational opportunities in 1977-78. TAP was utilized by 10% of the eligible workforce, and of these participants, 40% were hourly employees. These figures stand out for two reasons, in addition to the unusually high 50% figure. First, as is the case of DC37, TAP manages to attract significant proportions of users from the ranks of those considered least likely to utilize education and, second, TAP sustains a high level of participation despite the existence of a comprehensive internal education program.

Why does TAP do so well? Again, a look at the key features of the program reveals provisions which do much to overcome major barriers to participation.

TAP is an integrated component of the overall employee development program, which includes skills training, management and organizational development, technology-based seminars, and career counseling. It exists to finance both independently undertaken external education programs as well as company-initiated programs which require use of outside educational institutions.

Of crucial importance is the fact that TAP prepays 100% of the costs of approved educational programs successfully completed by employees. (The money must be refunded if the employee fails the course or doesn't complete it). The plan formerly paid only partial tuition costs. Through an "equity provision," hourly and salaried employees are entitled to the same tuition assistance benefits. The plan, with an annual budget of approximately \$450,000, is open to all half- and full-time employees on a prorated assistance basis. Acceptable courses and programs are those defined, very broadly, as job-related. In this case, the term encompasses not only those programs related to the employee's current or future job at Polaroid but also basic skills courses and severe degree programs.

TAP is widely publicized in a variety of ways (brochures, handbooks, media, supervisors, word-of-mouth, etc.) and the application process is easy and convenient. Furthermore, not only is educational counseling made available to employees at their worksite, but it is required before financial assistance is granted in order to ensure that the best educational match is made between student and course, to meet the objectives of both Polaroid and the employee.

Available anecdotal evidence suggests that the education program at Polaroid, and TAP within it, do in fact meet their fundamental objective of promoting advancement within the company. Regular opportunities are provided for hourly employees to "break rank" and move into salaried positions, and education is reportedly the key to making this happen. Whereas questions

arise in many organizations regarding thwarted expectations and lack of payoff from education, at Polaroid education is not simply encouraged; it is clearly rewarded. This, in fact, appears to be an important key to TAP's success.

One begins to sound repetitive when outlining TAP's other success factors. Again, what emerges is a combination of contextual and programmatic features. Counseling, publicity, full prepayment, simplified and liberal requirements and procedures all tailor the plan to the needs of working adults. Furthermore, Polaroid, from its highest leadership levels through the rest of its staff, has exhibited a clear and continuing commitment to the education and human development of all its employees. [Knox, 1979]

Taken together, the three programs point to a number of actions that if adopted by other employers would significantly enhance the attractiveness and utility of their tuition assistance plans: These are: (1) advance funds, eliminating or reducing employee out-of-pocket expenses; (2) broaden the eligible course criteria (in Kimberly-Clark's open program, 90% of courses taken are job or career-related); (3) simplify admissions and approval procedures; (4) provide such support services as career counseling, education advisement, and educational brokering; (5) keep constant the flow of information on the plan and on education and training options.

Willard Wirtz provides the following assessment of the experience of these three programs:

What emerges from the three programs is the broad common instruction that if the employee

education idea is taken seriously, if tuition assistance is made part of a broader education and training program, if provision is made for a staff function adequate to supply initiative which is apparently not going to develop among very many employees individually--then a substantial degree of participation, with apparently significant consequences, will result...It is essential to recognize too, that all three of these cases involve sufficiently large groups of employees to warrant the development of broad-gauge, well-staffed programs. These programs suggest strongly the advantages that accrue from making a tuition-aid plan one part of a broad employee education and training curriculum. Yet to list the principal characteristics of these particular initiatives is to realize that virtually all of them suggest smaller scale and partial replications... [Wirtz, 1979, p. 28]

He goes forward from that reading however to appraise what I would argue is the true potential of this private education finance source:

The real reason, though, for restrained reaction here is that these tuition aid and broader worker education developments, especially as they are reflected in cases such as these three, appear to offer such almost limitless prospect that the most serious danger may be in expecting too much from them too quickly. It is hard even to conceive of the changes that might come, in terms of everything from productivity per person hour to people's higher use of the human experience, from breaking out of the time-trap illusion that education is for youth and work for adults and never shall the two worlds overlap. It has been a mistake to assume that the "bridges between the two worlds of education and work" are properly built only from the school side of the gap. Worker education, including tuition-assistance as part of its curriculum, could be as important a development in the 1980's as the community colleges were in the 1960's--or even as the land grant colleges were a century ago. [Wirtz, 1979, p. 31]

BIBLIOGRAPHY

- Bureau of National Affairs. Training Programs and Tuition Aid Provisions. Personnel Policies Forum. Survey No. 123, October 1978.
- Charner, Ivan. Patterns of Adult Participation in Learning Activities. Washington, D.C.: National Institute for Work and Learning, 1980.
- Charner, Ivan. "Workers' Educational Benefits: An Exploration into the Non-Use of Tuition Aid Programs." Worker Education and Training Policies Project, National Manpower Institute, 1979.
- Clark, Harold F., and Davis, Joe C. "Training in Business and Industry." In Merle E. Strong (ed), Developing the Nation's Workforce. Yearbook 5. Washington, D.C.: American Vocational Association, 1975.
- Clark, Harold F., and Sloan, Harold S. Classrooms in the Factories: An Account of Educational Activities Conducted by American Industry. Rutherford, N.J.: Fairleigh Dickinson University, 1958.
- Fraser, Bryna Shore. The Structure of Adult Learning Education and Training Opportunity in the United States. Washington, D.C.: National Institute for Work and Learning, 1980.
- Goldstein, Harold. Training and Education by Industry. Washington, D.C.: National Institute for Work and Learning, 1980.
- Jaffe, A. J. and Stewart, Charles D. Manpower Resources and Utilization, 1951.
- Knox, Kathleen. Polaroid Corporation's Tuition Assistance Plan: A Case Study. Washington, D.C.: National Manpower Institute, 1979.
- LeBel, Alan A. Final Task A Report: A Description of Existing Negotiated Tuition Aid Plans. National Manpower Institute, 1977, Contract No. (NIE) 400-76-0125.
- Lusterman, Seymour. Education in Industry. New York: The Conference Board, 1977.
- O'Meara, J. Roger. Combatting Knowledge Obsolescence: II, Employee Tuition Aid Plans, New York: The Conference Board, 1970.

- Rosow, Leslie A. Kimberly Clark Corporation's Educational Opportunities Plan: A Case Study. Washington, D.C.: National Manpower Institute, 1979.
- Shore Jane. The Education Fund of District Council 37: A Case Study. Washington, D.C.: National Manpower Institute, 1979.
- Stewart, Charles D. Worklife Education and Training and the Ordeal of Change. Washington, D.C.: National Institute for Work and Learning, 1980.
- Swerdloff, Sol. Report on Project to Develop Data on Nonregistered Apprentices, by Occupation and Industry. Washington, D.C.: U. S. Department of Labor, Employment and Training Administration, Grant. No. 21-51-78-22 (1978).
- Tracey, William R. Managing Training and Development Systems. New York: American Management Association, 1974.
- U.S. Department of Labor. Bureau of Labor Statistics. Improvement of Labor Utilization Procedures. Bulletin 807, 1945.
- Venn, Grant. Man, Education and Manpower. Washington, D.C.: The American Association of School Administrators, 1970.
- Wool, Harold. "Recent Trends in the Labor Force." Monthly Labor Review. (December 1947).
- Woytinsky, W. S. & Associates. Employment and Wages in the United States, 1953.

TUITION ASSISTANCE IN THE PRIVATE SECTOR: ESTIMATES OF ITS COVERAGE AND POTENTIAL IMPLICATIONS FOR ADULT EDUCATION

I Size of Establishment by Number of Employees	II Number of Establishments ¹	III Number of Employees ¹	IV Estimated % of Establishments with Tuition Aid Plans ²	V Estimated % of Employees Eligible to Participate ³	VI Estimated Number of Eligible Employees	VII Estimated Number of Employees Participating at Average 4% Rate	VIII Estimated Effects on Number of Employees Participating in Adult Education Resulting from a Participation Rate Increase of:				
							1%	2%	3%	5%	10%
1,000 AND MORE	4,702	9,240,872	92 (90%-95%) ⁺	70% (65%-75%)	(6,583,978) high 5,950,992 @ 70%	238,039	+ 59,509	+119,019	+178,529	+ 297,548	+ 595,097
500-999	7,298	5,053,493	82 (80%-85%)	70% (65%-75%)	(3,221,601) high 2,900,704 @ 70%	116,028	+ 29,007	+ 58,014	+ 87,021	+ 145,035	+ 290,070
100-499	71,898	14,429,095	60 (55%-65%)	65% (60%-70%)	(6,565,238) high 5,627,347 @ 65%	225,093	+ 56,273	+112,546	+168,819	+ 281,366	+ 562,732
1-99	4,059,541	33,935,586	32 (25%-40%)	55% (50%-60%)	(8,149,340) high 5,976,182 @ 55%	239,047	+ 59,761	+119,523	+179,285	+ 298,808	+ 597,617
TOTALS:					(24,320,157) high 20,455,225 (17,039,658) low	818,207	+204,550	+409,202	+613,654	+1,022,757	+2,045,516

WARNING:

The data in these tables are no more than informed guesses about the reach of tuition assistance programs in the private sector. Survey research on the subject of tuition assistance plan incidence in the private sector has been infrequent and by and large limited surveys of the largest employer establishments. Thus, we have no empirical basis for the assumptions made regarding plan incidence or percentage of eligible employees for establishments under 500 employees, wherein the majority of the American workforce is to be found. These "guesstimates" are based on an "if this is so, then this is so" logic. They should be viewed and used accordingly.

1. Data in columns 2 and 3 are from Table 1B "United States-Establishments, Employees, and Payroll by Industry by Employment Size Class: 1976," County Business Patterns 1976, CBP-76-1, U.S. Dept. of Commerce (August 1978). These employee data excludes government employees, self employed persons, farm workers, domestic service workers, railroad employees, merchant fleet and foreign based workers.
2. Estimates of the percentages of establishments with tuition aid plans are based on Seymour Lusterman, Education in Industry, The Conference Board (1977), Table 2.1. For the 500-999 group and the 1000+ group Lusterman's estimates are used. No serious survey data are available on tuition aid plan incidence in establishments below 500. Estimates here assume, based on anecdotal evidence, a lower incidence the smaller the establishment size. We estimated a constant intergroup drop of 20% below the 500 employee size level.
3. For estimates of eligible employees we rely on J. Roger O' Meara, Combating Knowledge Obsolescence, the Conference Board (1970), Table 8 and Table 9. Table 8 examines categories of employees eligible, and Table 9 discusses length of service criteria. These are the key determinants of eligible populations. Again, for establishments below 500 employees no significant survey data are available. O'Meara estimates, based on his sample of 200 large companies that 84% are open to all employees and that 65% have no service time stipulation. For the top two establishment size groupings we assume a 70% eligibility. We estimate progressively lower percentages of eligibility for the smaller employer groupings assuming that because of higher turnover rates in smaller establishments fewer employees would meet service time requirements.

APPENDIX B

DEMONSTRATION PROJECTS

Based on Phase I findings regarding barriers to the use of education by working adults, NIWL devised three models of program intervention to be implemented at three sites at which labor and management officials had a joint interest in raising the levels of worker participation in their education plans. The year-long projects began in June 1979. At the time of this writing, a process has begun which will attempt to assess the changes that have occurred at each site as a result of the interventions. What follows is a brief profile of the three projects, including their current status.

• Model 1 -- Information Delivery. Communications Workers of America, Local 11588, and General Telephone of California, Pomona, California.

This demonstration project is designed to provide information to 1800 hourly workers at several General Telephone Company (of California) plants in the Pomona area. Through joint efforts by both GTC and the Communications Workers of America, Local 11588, workers are being given information on the company's tuition assistance plan and on local education and training opportunities.

One on one contacts by ten hourly workers who are members of the project's Education Committee and group meetings of workers sponsored by both the union and the company are being used as an initial means of introducing the workers to the idea of participating in education.

The Committee members' basic functions are to meet with the employees and to apprise them of the existence and nature of their tuition aid plan and the available educational opportunities within the area. As of February 1980, each of the employees in the target group had been contacted, either one-on-one by a committee member or in a small group. The committee has started to contact the employees the second time. They will again inform, and encourage them to return to school and use their tuition assistance benefits. Committee members meet weekly with the Site Coordinators to discuss the program and problems and to compare notes from contacts made during the week.

In addition to personal contacts, a number of other means are being used on-site to get out the information on educational opportunity. These methods include bulletin board posters, letters to each employee in the target group, hand-out folders, and articles in the company and union publications.

• Model 2 -- Information Delivery and Educational Advisement. International Union of Operating Engineers, Local 18, Cleveland, Ohio.

The Model 2 demonstration project is currently in place in Cleveland, Ohio, at Local 18 of the International Union of Operating Engineers. This model is designed to do two things:

(1) to provide information on Local 18's training site programs and facilities, the union's Education and Safety Fund (tuition assistance for members), and educational opportunities in the Cleveland area; and

(2) to establish an on-site education advisement capability for members in the form of fifteen Local 18 stewards trained as Education Information Advisors (EIA's).

Due to the demands of the construction season on both EIA's and Local 18 members, start-up of this project was scheduled for January 1980. As of February 1980, the IEA's have been selected and oriented to the project and the first activity had begun.

The Site Coordinator and EIA's developed and publicized a union-sponsored GED program which began at the union's regional offices during April 1980. The program is being sponsored by the union for the membership who will be able to use tuition assistance money from their Education and Safety Fund to cover the costs of participation and testing. This program and others which are developed as a result of this project will be publicized through the Local 18 newspaper and by special bulletins and hand-outs from the union.

• Model 3 -- Information, Advisement, and Improved Delivery of Educational Options. Connecticut State Employees Association, Connecticut Employees Union Independent, the State of Connecticut, and the Coordinating Committee for the North Central Region.

Model 3 is a joint demonstration project between the State of Connecticut; two unions representing state workers -- the Connecticut State Employees Association (CSEA) and the Connecticut Employees Union Independent (CEUI); and the Coordinating Committee for the North Central Region (CCNR), which consists of higher education institutions.

This model, in addition to providing information and advisement services, was designed also to focus on improving delivery of educational options based on workers' expressed needs at the site. Five state agencies are participating in the demonstration project, which is targeted to reach 500 workers each in the clerical and maintenance bargaining units.

Eleven Education Information Advisors (EIA's) representing state workers from both bargaining units are currently collecting and disseminating information and advising their co-workers on available educational opportunities. Because the internal workings of the five agencies vary widely, project work plans have been tailored specifically to fit each work site's operations by the agency's EIA's in consultation with the local Site Coordinator.

To date, methods used to reach employees have included large group meetings sponsored by agencies, small group meetings arranged by EIA's, one-to-one contacts between EIA's and their co-workers, development of agency-specific posters for bulletin boards, articles in the "State Scene" newspaper and in the union papers, and handouts on the project.

The Connecticut demonstration is similar to those in California and Ohio in the information delivery aspects of the model design. The differences between Connecticut and the other two sites lie in two areas:

- (1) the design of the Connecticut project includes representation of a consortium of educational institutions on the project's local planning committee, in order to facilitate

delivery of educational programming to the workers in the target groups; and

(2) the site's complexity - with five state agencies, two unions, (each with separately negotiated tuition assistance provisions) and several project sites, the demonstration is an extremely complicated one.